UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/805,307	03/22/2004	Fumiharu Nakayama	016907-1632	9166

22428 7590 10/27/2008
FOLEY AND LARDNER LLP
SUITE 500
3000 K STREET NW
WASHINGTON, DC 20007

EXAMINER	
RODRIGUEZ, LENNIN R	

ART UNIT	PAPER NUMBER
2625	

MAIL DATE	DELIVERY MODE
10/27/2008	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/805,307	NAKAYAMA, FUMIHARU	
	Examiner	Art Unit	
	LENNIN R. RODRIGUEZ	2625	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *14 July 2008*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-13* is/are pending in the application.

4a) Of the above claim(s) *5-12* is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-4 and 13* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Response to Arguments

1. Applicant's arguments with respect to claim 1 have been considered but are moot in view of the new ground(s) of rejection. Applicant's newly added limitation "two antennas" required new search from the examiner therefore new art has been applied.

Claim Rejections - 35 USC § 103

2. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

3. Claims 1-2 and 13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Nakamura (JP 2002-086854, all citations from the machine translation) in view of Lueker (US 6,134,105).

(1) regarding claim 1:

Nakamura '854 discloses an image forming apparatus (1 in Fig. 1) comprising:

a main body of the image forming apparatus (It is evident in Fig. 1 that the printing apparatus has a body);

a wireless LAN module that is provided inside a rear surface of the main body of the image forming apparatus (Abstract, SOLUTION, lines 3-7, paragraph [0014], lines 1-2 and 112, in Fig. 1, where the control circuit contains the wireless LAN and is located at the back of the printer as could be referenced by looking at Fig 1 and looking at the

control panel 113, generally at the front of a printer so users can have easy access to it);

an antenna that is provided on the rear surface of the main body of the image forming apparatus (111 in Fig. 1, where the antenna is located on the back of the printer if you are looking at it from the right side of the figure where the control panel 113 is); and

a cable that connects the wireless LAN module and the antenna with a shortest distance (as can be shown in Fig. 1, antenna 111 and control circuit 112 are close together, it is inherent that a cable should be use for connecting an antenna with something else, in this case a wireless LAN, since an antenna by itself does not performs any functionality and by looking at the closeness of the two components it is apparent for the examiner that the shortest distance of cable should be used, because it would be unnecessary the use of extra cable for such a short connection).

Nakamura '854 discloses all the subject matter as described above except for the image forming apparatus having two antennas.

However, Lueker '105 teaches the image forming apparatus having two antennas (21 in Fig. 1 and column 3, line 65 through column 4, line 1, where the printer has three antennas attached (two included) for data communication).

Having a system of Nakamura '854 reference and then given the well-established teaching of Lueker '105 reference, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the image forming apparatus of Nakamura '854 to include the image forming apparatus having two antennas as

taught by Lueker '105 because it would be desirable to have available a single, easily transported command unit which provides a fully functional, easily deployed and immediately operable communications and information transfer capability to users in remote locations. This command center would replicate and provide the functionality of a home agency information and computing system to a user at a remote site (column 1, lines 57-63).

(2) regarding claim 2:

Nakamura '854 further discloses wherein the wireless LAN module is provided on a control board that is disposed inside the rear surface of the main body of the image forming apparatus (Abstract, SOLUTION, lines 3-7, paragraph [0014], lines 1-2 and 112, in Fig. 1, where the control circuit contains the wireless LAN and is located at the back of the printer as could be referenced by looking at Fig 1 and looking at the control panel 113, generally at the front of a printer so users can have easy access to it).

(3) regarding claim 13:

Nakamura '854 further discloses wherein the rear surface of the main body is perpendicular to a ground surface upon which the image forming apparatus sits (111 in Drawing 2, as can be seen by the position of the antenna and the back face 110 of printer 1, it is clearly perpendicular to surface 91).

4. Claims 3-4 are rejected under 35 U.S.C. 103(a) as being unpatentable over Nakamura (JP 2002-086854) and Lueker (US 6,134,105) in view of Lynch et al. (US 6,069,587).

(1) regarding claim 3:

Nakamura '854 discloses all the subject matter as described above except wherein the two antennas respectively comprise a main antenna and a sub-antenna.

However, Lueker '105 teaches the image forming apparatus having two antennas (21 in Fig. 1 and column 3, line 65 through column 4, line 1, where the printer has three antennas attached (two included) for data communication).

Having a system of Nakamura '854 reference and then given the well-established teaching of Lueker '105 reference, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the image forming apparatus of Nakamura '854 to include the image forming apparatus having two antennas as taught by Lueker '105 because it would be desirable to have available a single, easily transported command unit which provides a fully functional, easily deployed and immediately operable communications and information transfer capability to users in remote locations. This command center would replicate and provide the functionality of a home agency information and computing system to a user at a remote site (column 1, lines 57-63).

Nakamura '854 and Lueker '105 disclose all the subject matter as described above except wherein the two antennas respectively comprise a main antenna and a sub-antenna.

However, Lynch '587 teaches wherein the two antennas comprise a main antenna and a sub-antenna (column 3, lines 41-56, where there is a main antenna 16 and an antenna extension 18 (sub-antenna)).

Therefore it would be obvious to one of ordinary skill in the art at the time the invention was made wherein the two antennas comprise a main antenna and a sub-antenna as taught by Lynch '587 in the system of Nakamura '854 and Lueker '105. With this, when the MEM switches are open, electrical isolation is established between the antenna segments, thereby allowing the antenna to operate in one frequency range without interference from the other frequency ranges. Accordingly, the MEM switches couple additional segments to the antenna, thereby allowing the antenna to operate in different frequency ranges (column 2, lines 22-28).

(2) regarding claim 4:

Nakamura '854 discloses all the subject matter as described above except wherein the two antennas each comprise a dual-band antenna.

However, Lueker '105 teaches the image forming apparatus having two antennas (21 in Fig. 1 and column 3, line 65 through column 4, line 1, where the printer has three antennas attached (two included) for data communication).

Having a system of Nakamura '854 reference and then given the well-established teaching of Lueker '105 reference, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the image forming apparatus of Nakamura '854 to include the image forming apparatus having two antennas as taught by Lueker '105 because it would be desirable to have available a single, easily transported command unit which provides a fully functional, easily deployed and immediately operable communications and information transfer capability to users in remote locations. This command center would replicate and provide the functionality of

a home agency information and computing system to a user at a remote site (column 1, lines 57-63).

Nakamura '854 and Lueker '105 disclose all the subject matter as described above except wherein the two antennas each comprise a dual-band antenna.

However, Lynch '587 teaches wherein the two antennas each comprise a dual-band antenna (10 in Fig. 1, column 3, lines 41-56).

Therefore it would be obvious to one of ordinary skill in the art at the time the invention was made wherein the two antennas each comprise a dual-band antenna as taught by Lynch '587 in the system of Nakamura '854 and Lueker '105. With this, when the MEM switches are open, electrical isolation is established between the antenna segments, thereby allowing the antenna to operate in one frequency range without interference from the other frequency ranges. Accordingly, the MEM switches couple additional segments to the antenna, thereby allowing the antenna to operate in different frequency ranges (column 2, lines 22-28).

Conclusion

5. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL.** See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within

TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to LENNIN R. RODRIGUEZ whose telephone number is (571)270-1678. The examiner can normally be reached on Monday - Thursday 7:30am - 6:00pm EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, King Poon can be reached on (571) 272-7440. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Lennin R Rodriguez/
Examiner, Art Unit 2625

/Twyler L. Haskins/
Supervisory Patent Examiner, Art Unit 2625